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AUTHOR Davis, Benjamin G.

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ABSTRACT

During the calendar year September 1977 to August 1978 there were over 10,000 Arizona migrant students listed in the Migrant Student Record Transfer System (MSRTS). Because agriculture was a year round activity within the state, students tended to remain for relatively long periods of time. Forty-four percent of the students moved only one time during the year and 31% indicated no movement at all. An analysis of the MSRTS records showed that 1,349 students entered Arizona from 31 states. Almost 80% were from California, Colorado, Oregon, Texas and Idaho and 58% were from 17 counties. Over 81% of the entering students were in grades K through 6. Fifty percent of the 781 students departing the state left during May and June. Significant differences in destinations existed depending on the student's county of origin in Arizona. Most students leaving Maricopa county went to Texas, and 69.6% of those leaving Yuma county went to California. Four counties in California, Colorado, and Oregon received 26% of all the migrant students departing Arizona. Identification of home base states, counties providing significant numbers of incoming students and areas receiving large numbers of students would serve to allow closer coordination of educational, health, and other social programs. (DS)

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A STUDY FOR THE STATE OF ARIZONA TO DEFINE MOVEMENT PATTERNS OF MIGRANT STUDENTS

SEPTEMBER 1977 - AUGUST 1978

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CAROLYN WARNER
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DR. JIM HARTGRAVES
DEPUTY SUPERINTENDENT

DIVISION OF MIGRANT CHILD EDUCATION

DIRECTOR
DR. J. O. MAYNES, JR.

ASSISTANT DIRECTOR
MR. GILBERT GARCIA

PROGRAM SPECIALISTS
MR. DONALD J. BRINK AND MR. WILLIAM PADILLA, JR.

ADMINISTRATIVE ASSISTANT
MR. MICK INGRASSI

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CHAPTER 1

INTRODUCTION

Background

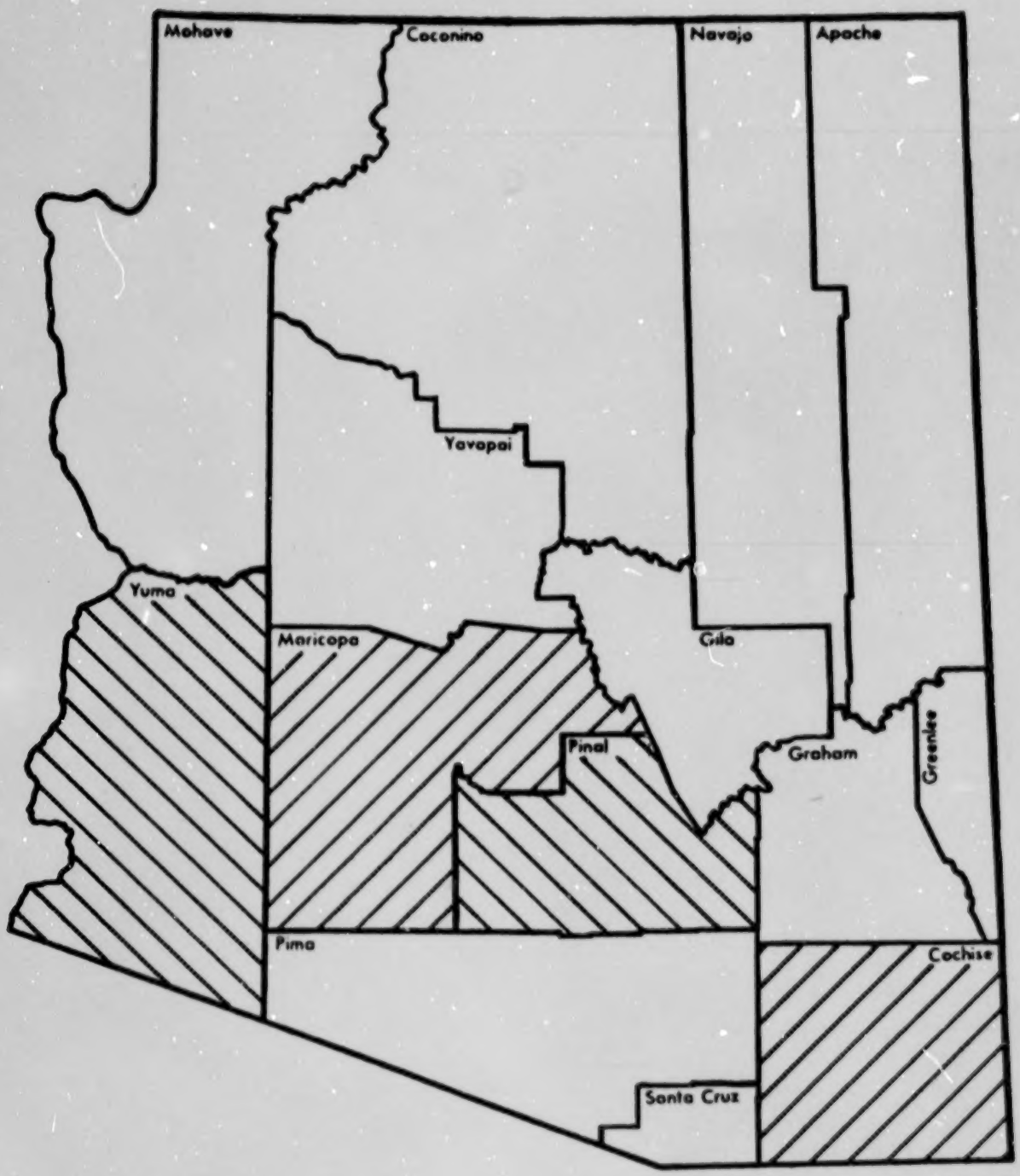
The Arizona Migrant Child Education Program is a comprehensive and far-reaching program. Designed to help remediate the negative impacts of the migrant lifestyle on a child's education, the program provides supplementary services in education, health, nutrition, and social service areas. The program has grown in the ten years of its existence to the sixth largest in the nation, serving approximately 11,000 students and spending over three and one-half million dollars annually.

Arizona is considered to be one of the four home-base states (the others being California, Florida, and Texas). As such, students tend to remain in the state for relatively long periods of time, moving north as the annual demand for migrant farmworkers occurs.

Migrant farmworkers are active within the state, also. Agriculture in Arizona is a year-round activity, varying in crop type and location. The basic crops in which migrant farmworkers are active are citrus fruits, fresh vegetables, and melons. There are six major agricultural areas within the four Arizona counties of Cochise, Maricopa, Pinal, and Yuma. These four counties, shown in Figure 1, are the major sources of migrant farmworkers and are the counties which are presently participating in the Arizona Migrant Child Education Program.

FIGURE 1

COUNTIES PARTICIPATING IN ARIZONA MIGRANT CHILD EDUCATION PROGRAM



Need for the Study

In 1974, an evaluation of the effectiveness of the Migrant Student Record Transfer System (MSRTS) and of the movement patterns of Arizona's migrant students was conducted. Prior to completing that study, there was no comprehensive, definitive evaluation of the movement patterns of migrant students from, to, and within the state. Through the use of the study, administrators and teachers were able to better anticipate the numbers and locations of migrant students and to have programs in place on their arrival.

While this 1974 study proved to be useful to program staff, it was believed that there were some significant changes in the number and mobility patterns of migrant students in the five years subsequent to the study. Thus, it was decided to undertake an evaluation of migrant student movements in an attempt to answer the following questions:

- What are the dimensions of the flow of migrant students to and from other states, month by month?
- How much intrastate movement is there and what patterns does it take?
- What changes have occurred in the movement patterns of migrant students in the past five years?

The use of the information generated by this study will serve to answer the above questions and will assist the Arizona Migrant Child Education Program in better meeting the specialized needs of migrant students.

Study Approach

The analysis of migrant student movements in Arizona involved three basic tasks:

- Data collection
- Analysis of student movement data
- Preparation of graphics and the Final Report

The data collection task involved a review of the computer programs developed by D. A. Lewis Associates, Inc., to access and extract the required data from the Migrant Student Record Transfer System. Once the review of the computer programs was completed, they were run against the MSRTS Data Base to extract the data necessary for the study.

The second task involved the analysis of migrant student movement patterns utilizing the data extracted from the MSRTS Data Base. These data were analyzed to facilitate an understanding of both inter- and intrastate migrant student movements. Data were reported separately for primary (grades K through 6) and secondary (grades 7 through 12). In analyzing these data, a move was recorded only when a child actually entered or left a project school. Disenrollment and subsequent re-enrollment in the same school was not included unless the student had enrolled in an intervening school. Finally, data were analyzed both for the most recent academic year (September 1977 through August 1978) and for the 1973 calendar year in order to provide an understanding of the major trends and changes in migrant student movements within the state.

The third task involved the preparation of graphic materials and the Final Report. The Final Report contains a detailed analysis of migrant student movements for the academic year September 1977 through August 1978. In this analysis, an evaluation of interstate entering and departing movements is presented and intrastate (county-to-county) movements are likewise analyzed. Following this analysis for the most recent academic year, a comparative analysis has been performed to permit an understanding of the basic trends and changes that have occurred in student movement patterns. Finally, a section containing a summary of the major findings of the study and the recommendations for action has been included.

Study Limitations

The data used in this study were taken from the records contained in the Migrant Student Record Transfer System, a component of the State of Arkansas Department of Education located in Little Rock, Arkansas. The records of all migrant students in the Data Base were searched and those that were identified as being connected in some manner with the Arizona Migrant Child Education Program were set aside. In accomplishing this, student records were extracted and processed while maintaining the data privacy of an individual student's record. Individual records and the computer listings which were analyzed did not contain either an individual's name or his or her identification number, and both the spirit and the letter of PL 93-380 were met throughout.

Because the data used in the study were drawn from the MSRTS, they are subject to the limitations which apply to those data in general. One of the major limitations is that a student movement is recorded only if students move from one project school to another project school. Should a student move from a project school to a nonproject school, they would not be shown as having any movement. Thus, students who leave Arizona at the beginning of summer and who do not enroll in any migrant education program during the summer would not be shown as having moved when, in fact, they are legally considered to be interstate migrant students. Finally, the data utilized in the study are subject to the vagaries of the enrollment and disenrollment process in terms of the speed with which student data is entered into the system. Even given these limitations, however, data presented accurately reflect the Arizona-related migrant students who have been associated with the MSRTS Data Base.

CHAPTER 2

DETAILED 1977-1978 ANALYSIS

Introduction

This chapter presents a detailed analysis of the movement of both inter- and intrastate migrant students during the academic year from September 1977 through August 1978. The data for inter- and intrastate migrant students have been presented separately in order to permit the Arizona Migrant Child Education Program to be aware of the differences that exist and to meet the differing needs of these two groups of students.

The first portion of this chapter will present an analysis of interstate migrant student movements. These movements will be evaluated separately for entering and departing students. The second major section of this chapter presents an evaluation of the intrastate movements of Arizona's migrant students.

Interstate Migration

Entering Arizona

As one of the major agricultural states in the nation, Arizona attracts migrant farmworkers from a large number of states across the nation. The general patterns of the 1,349 students who entered Arizona from other states during the study year may be seen in Figure 2. These students entered Arizona from 31 states across the nation, enrolling in project schools in each month. As may be seen in Figure 3, the predominant

GENERAL PATTERNS OF MIGRANT STUDENTS ENTERING ARIZONA

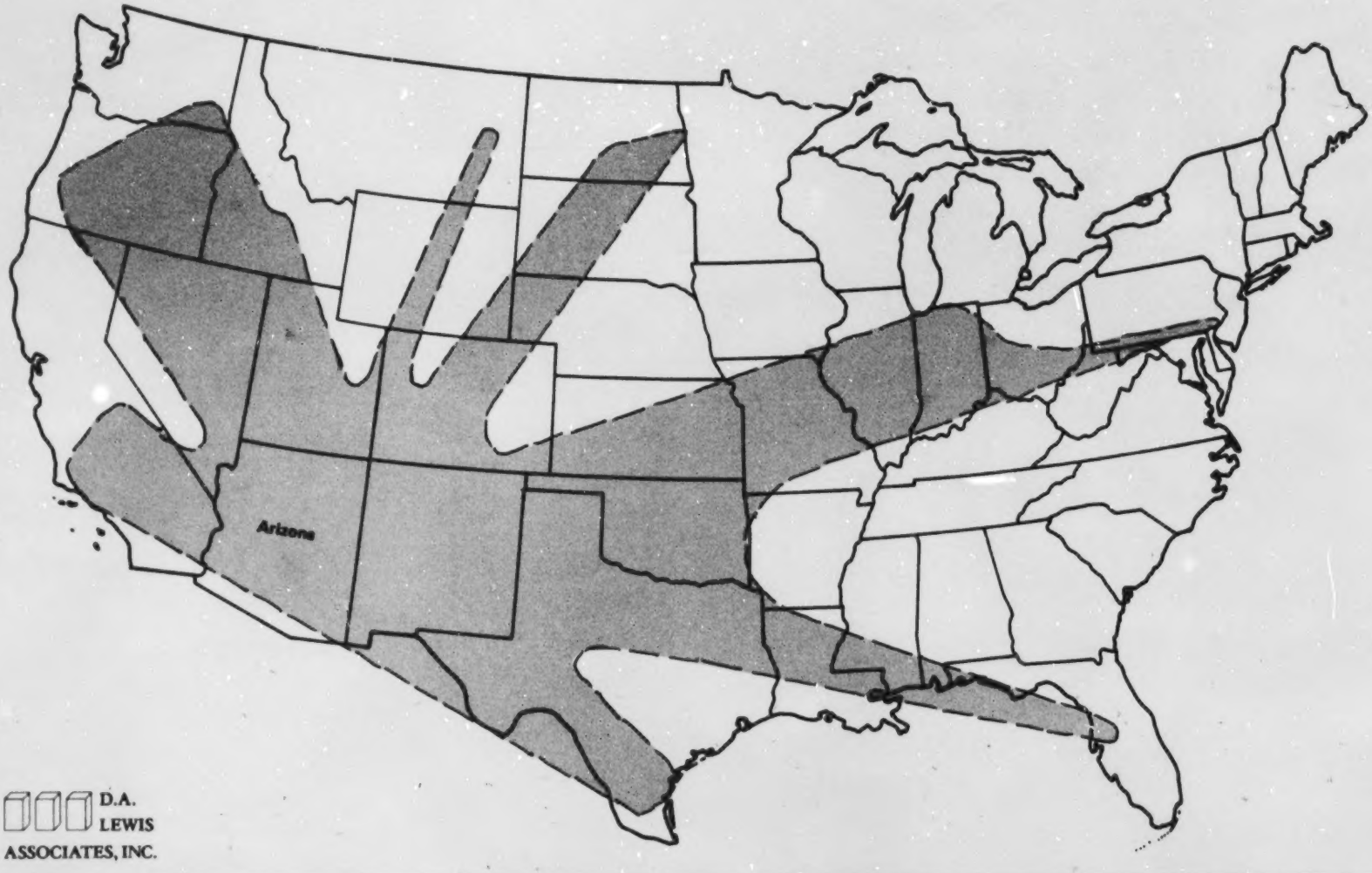


FIGURE 3

NUMBER, ORIGIN, AND GRADE LEVELS OF MIGRANT STUDENTS ENTERING ARIZONA BY MONTH SEPTEMBER 1977 - AUGUST 1978

	SEPT. 1977			OCT. 1977			NOV. 1977			DEC. 1977			JAN. 1978			FEB. 1978			MAR. 1978			APR. 1978			MAY 1978			JUNE 1978			JULY 1978			AUG. 1978			TOTAL		
SENDING STATE	K-6	7-12	TOT	K-6	7-12	TOT	K-6	7-12	TOT	K-6	7-12	TOT	K-6	7-12	TOT	K-6	7-12	TOT	K-6	7-12	TOT	K-6	7-12	TOT	K-6	7-12	TOT	K-6	7-12	TOT	K-6	7-12	TOT	K-6	7-12	TOT	K-6	7-12	TOT
ARKANSAS	1		1				6	1	7				2	1	3	3		3				3	1	4										3	1	4	18	4	22
CALIFORNIA	101	31	132	136	30	166	54	11	65	3		3	42	10	52	18	5	23	28	5	33	14	2	16	12	2	14	22	4	26	7	4	11	60	20	80	497	124	621
COLORADO	31	5	36	10	1	11	9	3	12	1		1	24		24	1		1							8		8	5		5	9		9	37	1	38	135	10	145
FLORIDA	4	1	5	1		1	2		2										3		3								2	2					1	1	10	4	14
IDAHO	12		12	15	7	22	16		16	4		4	9	1	10	5		5	5	1	6							2	2	4	4	2	6	8	3	11	80	16	96
ILLINOIS													1		1																						1		1
INDIANA																																		1		1	1		1
KANSAS							3		3																3		3										6		6
MICHIGAN				3		3	3		3				3		3										1		1							2		2	12		12
MINNESOTA													1		1																			1		1	2		2
MISSOURI	3		3				2	1	3					1	1							2		2												7	2	9
MONTANA	2		2	3		3							7		7																13		13				25		25
NEBRASKA	5		5																															2		2	7		7
NEVADA																6		6																			6		6
NEW JERSEY				3		3																												2		2	5		5
NEW MEXICO				3		3	1		1				2		2				1		1														1	1	7	1	8
NORTH DAKOTA		2	2	3	1	4																															3	3	6
OHIO				2	1	3																															2	1	3
OKLAHOMA	2		2																																		2		2
OREGON	15	5	20	9	6	15	7		7	1	3	4	4	2	6	1		1										15	9	24	3	3	6	14	11	25	69	39	108
TEXAS	15	6	21	15	6	21	4	1	5				14	6	20	1		1	7	1	8	5	2	7	3	1	4	1	1	2	5		5	6	2	8	76	26	102
UTAH	6	1	7	9	3	12	4	3	7	1		1	33		33																			8	1	9	61	8	69
WASHINGTON	3	1	4	23	4	27	17	4	21	1		1	4	1	5	2		2				1		1	2		2	4	2	6	1		1	7	2	9	65	14	79
TOTAL	200	52	252	235	59	294	128	24	152	11	3	14	146	22	168	37	5	42	44	7	51	25	5	30	29	3	32	49	20	69	42	9	51	151	43	194	1097	252	1349

month for students entering Arizona was October. It was during this month that almost 22% of all migrant students entered the state.

While migrant students entered Arizona from a total of 23 states, five states supplied almost 80% of migrant students. The predominant five states may be seen below:

California	46.0%
Colorado	10.8%
Oregon	8.0%
Texas	7.6%
Idaho	7.1%

In all, eight states provided 25 or more students to the Arizona program during the study year.

While there are four counties participating presently in the Arizona Migrant Child Education Program, only three are involved in any significant way with students entering the state. Those three counties are Maricopa, Pinal, and Yuma, as may be seen in Figure 4. Also observable from Figure 4 is the fact that there was no entering county data reported for approximately 25% of the interstate students who entered Arizona.

Figures 3 and 4 also provide detailed information concerning the grade levels of the migrant students who entered Arizona during the study year. As may be seen, over 81% of entering students were in grades K through 6. While this figure is typical across the nation, given what is known about the family structure of migrant farmworkers, this indicates that there is

FIGURE 4

NUMBER, ORIGIN, AND COUNTY DESTINATION OF MIGRANT STUDENTS ENTERING ARIZONA SEPTEMBER 1977 - AUGUST 1978

	COCHISE			MARICOPA			PINAL			YUMA			COUNTY NOT REPORTED			TOTAL		
SENDING STATE	K-6	7-12	TOTAL	K-6	7-12	TOTAL	K-6	7-12	TOTAL	K-6	7-12	TOTAL	K-6	7-12	TOTAL	K-6	7-12	TOTAL
ARKANSAS				3	1	4	6	2	8	9		9		1	1	18	4	22
CALIFORNIA				40	9	49	46	13	59	315	83	398	96	19	115	497	124	521
COLORADO	1		1	23	8	31	11	1	12	31	1	32	69		69	135	10	145
FLORIDA				9	1	10		1	1	1		1		2	2	10	4	14
IDAHO				45	13	58	12		12	3		3	20	3	23	80	16	96
ILLINOIS													1		1	1		1
INDIANA				1		1										1		1
KANSAS				3		3				3		3				6		6
MICHIGAN				2		2	3		3	2		2	5		5	12		12
MINNESOTA													2		2	2		2
MISSOURI				5	1	6		1	1	2		2				7	2	9
MONTANA				11		11							14		14	25		25
NEBRASKA				6		6							1		1	7		7
NEVADA				3		3	3		3							6		6
NEW JERSEY				5		5										5		5
NEW MEXICO				1	1	2	5		5				1		1	7	1	8
NORTH DAKOTA				3	3	6										3	3	6
OHIO										2	1	3				2	1	3
OKLAHOMA										2		2				2		2
OREGON				29	12	41	4	2	6	21	11	32	15	14	29	69	39	108
TEXAS				38	17	55	17	3	20	9	4	13	12	2	14	76	26	102
UTAH				13	4	17	3	2	5				45	2	47	61	8	69
WASHINGTON				13	4	17	12	1	13	33	6	39	7	3	10	65	14	79
TOTAL	1		1	253	74	327	122	26	148	433	106	539	288	46	334	1097	252	1349

a large number of migrant students in grades 7 through 12 that is presently not being served.

Two further pieces of information will prove to be of special benefit in meeting the needs of the migrant students who enter Arizona. The first of these is the specific counties from which the largest numbers of students arrive. By knowing what these counties are, it will be possible to coordinate programs to a greater extent so that migrant students will not lose a significant amount of time because of their mobility. As may be seen in Figure 5, using an arbitrary cutoff of at least 20 migrant students, 17 counties accounted for over 58% of all the students that entered Arizona. Further analysis will reveal that four counties supplied over 26% and that one county, Merced in California, supplied 9.6% of all the migrant students that entered Arizona during the study year. It is obvious that coordination needs to occur with these major sending counties if migrant students are to benefit from the education that is provided by the two states. Figure 6 provides the other coordinating point — that of the home base states of migrant students which entered Arizona. In all, 15 states plus the nation of Mexico served as home base states for these students that entered during the study year. Given that it is in the home base state that the migrant student typically spends the greatest portion of the academic year, a knowledge of the home base state will permit Arizona to develop programs that will coordinate with and enhance a student's other learning experiences. In this regard, Arizona is in an enviable position, for almost two-thirds of the

FIGURE 5

MAJOR SENDING COUNTIES FOR MIGRANT STUDENTS
ENTERING ARIZONA
SEPTEMBER 1977 - AUGUST 1978

CALIFORNIA	
FRESNO	24
IMPERIAL	42
MERCED	130
MONTEREY	99
RIVERSIDE	51
SAN JOAQUIN	43
STANISLAUS	45
YOLO	29
COLORADO	
ALAMOSA	65
SAGUACHE	21
IDAHO	
CANYON	34
MINIDOKA	22
OREGON	
MARION	21
WASHINGTON	67
UTAH	
BOX ELDER	25
UTAH	33
WASHINGTON	
YAKIMA	44

FIGURE 6

HOME BASE STATES OF MIGRANT STUDENTS ENTERING ARIZONA
SEPTEMBER 1977-AUGUST 1978

HOME BASE STATE	GRADE LEVELS		
	K-6	7-12	TOTAL
ARIZONA	683	159	842
ARKANSAS	10	1	11
CALIFORNIA	152	28	180
COLORADO	10	2	12
FLORIDA	6	2	8
IDAHO	29	7	36
KANSAS	4	—	4
MISSOURI	8	2	10
NEW MEXICO	7	2	9
OKLAHOMA	12	1	13
OREGON	23	10	33
PENNSYLVANIA	—	1	1
TEXAS	91	24	115
UTAH	3	—	3
WASHINGTON	10	1	11
MEXICO	19	4	23
NOT REPORTED	30	8	38
TOTAL	1097	252	1349

students that entered Arizona during the study year were home based in Arizona.

Departing Arizona

As was discussed previously, Arizona supplies migrant farmworkers to all of the major agricultural regions in the nation. The general patterns of the flow of migrant students and their families as they leave the State of Arizona may be seen in Figure 7. Twenty-one states serve as the destination point for Arizona's migrant students as they leave the state. These destinations are as far north as Washington, Idaho, and Montana and as far east as New Jersey and South Carolina. While students leave for 21 different states, Figure 8 indicates that the top four states received over 76% of all migrant students departing Arizona in the study year, as may be seen below:

California	47.0%
Oregon	10.2%
Texas	9.9%
Colorado	9.5%

While students leave Arizona in all twelve months, two months predominate. Approximately 50% of the departing students leave during the months of May and June. This is fortunate for the students involved in that they are leaving the State at the end of the school year. When these data are broken down into primary and secondary levels, it may be observed that almost 60% of those students who are in grades 7 through 12 who

GENERAL PATTERNS OF MIGRANT STUDENTS DEPARTING ARIZONA

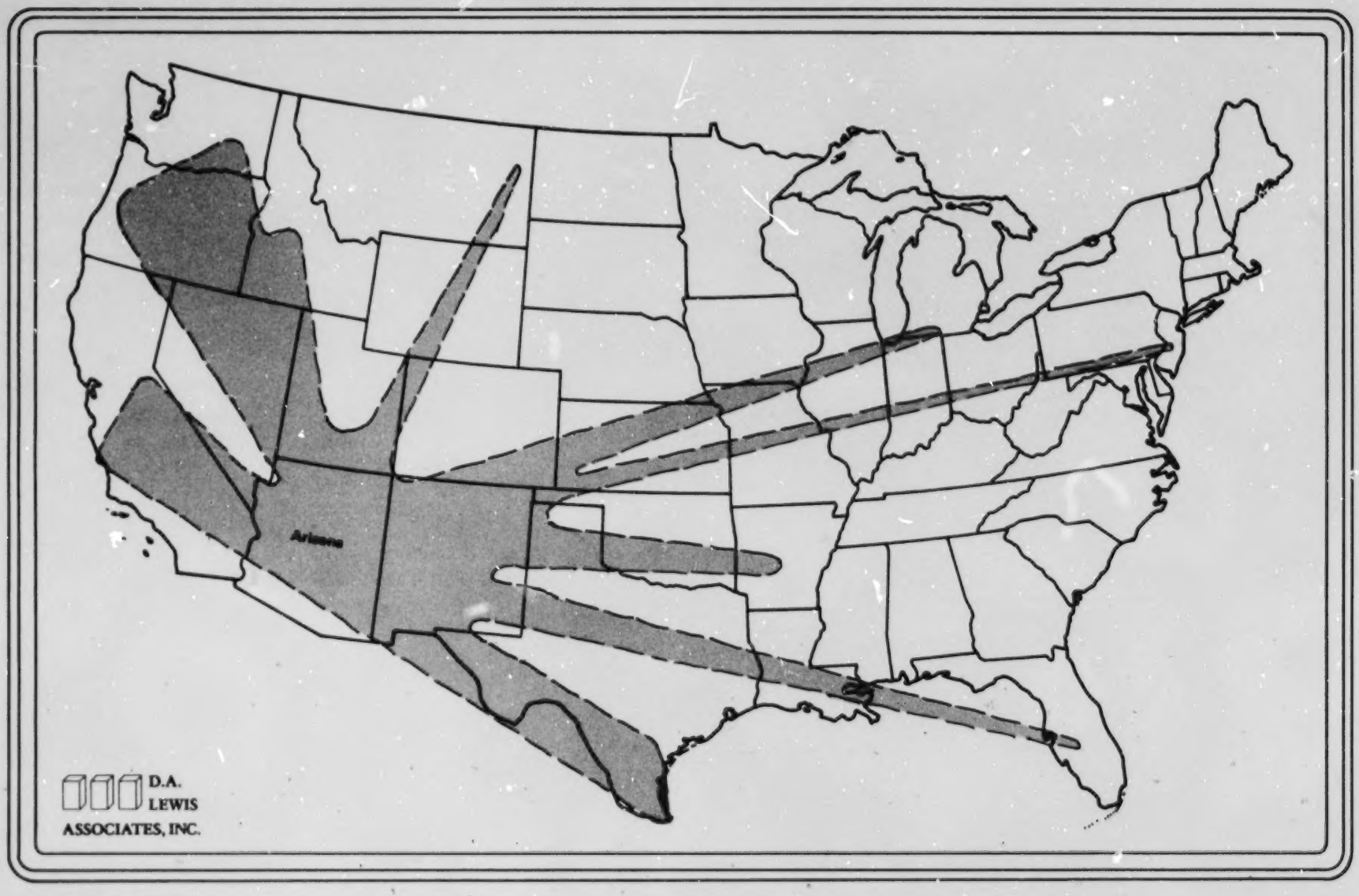


FIGURE 8

NUMBER, DESTINATION, AND GRADE LEVELS OF MIGRANT STUDENTS DEPARTING FROM ARIZONA BY MONTH SEPTEMBER 1977 - AUGUST 1978

	SEPT. 1977			OCT. 1977			NOV. 1977			DEC. 1977			JAN. 1978			FEB. 1978			MAR. 1978			APR. 1978			MAY 1978			JUNE 1978			JULY 1978			AUG. 1978			TOTAL		
RECEIVING STATE	K-6	7-12	TOT	K-6	7-12	TOT	K-6	7-12	TOT	K-6	7-12	TOT	K-6	7-12	TOT	K-6	7-12	TOT	K-6	7-12	TOT	K-6	7-12	TOT	K-6	7-12	TOT	K-6	7-12	TOT	K-6	7-12	TOT	K-6	7-12	TOT	K-6	7-12	TOT
ARKANSAS	1	2	3										3		3				4		4	7		7	2	1	3										17	3	20
CALIFORNIA	19	8	27	15	2	17	19	5	24	9	2	11	24	4	28	5	1	6	24	6	30	43	4	47	68	17	85	57	27	84	5	2	7	1	1	289	78	367
COLORADO	3		3	3		3							2		2	1		1	5		5	7		7	21	1	22	17	4	21	8	1	9	1	1	68	6	74
FLORIDA							3		3	3	1	4																								6	1	7
IDAHO	3		3										4		4	5		5				2	2	4	14	3	17	2	5	7	5		5			35	10	45
KANSAS										1		1																								1		1
MICHIGAN				1		1																1		1	2	1	3	1		1						5	1	6
MINNESOTA							1		1																											1		1
MISSOURI				5		5																														5		5
MONTANA							1	1	2													1	1	2	4		4							3		3	9	2	11
NEBRASKA	1		1																3		3				2		2									6		6
NEW JERSEY																												3		3						3		3
NEW MEXICO				1		1																2	2	4				2		2						5	2	7
OHIO													4	2	6																					4	2	6
OKLAHOMA																			1	1	2															1	1	2
OREGON		1	1				1		1	1		1	7	5	12										27	12	39	15	11	26						51	29	80
SOUTH CAROLINA													1		1																					1		1
TEXAS	4		4	2		2	6	1	7				12	2	14	9	1	10	1	1	2	1		1	20	3	23	10	4	14						65	12	77
UTAH	2		2		1	1		1	1				1		1							1		1	5	5	10	2		2				1	1	12	7	19
WASHINGTON	1		1					1	1	3	2	5	9	2	11	2		2	2		2	5		5	12	3	15									34	8	42
WYOMING		1	1																																		1	1
TOTAL	34	12	46	27	3	30	31	9	40	17	5	22	67	15	82	22	2	24	40	8	48	70	9	79	177	46	223	109	51	160	18	3	21	6	6	618	163	781

leave Arizona do so during the months of May and June. This is particularly fortunate for these students, especially given the extremely high drop-out rate of migrant secondary students.

While migrant students leave Arizona for a large number of states across the country, there are some significant differences in the student destinations depending upon their county of origin within the State of Arizona. For instance, while almost 50% of the students that leave Arizona travel next to California, that figure is 69.6% for Yuma County, 27.5% for Pinal County, and about 6.5% for Maricopa County. In fact, the predominant destination of students leaving Maricopa County is Texas. Program persons at the county level should be aware of the differences in student destinations in an attempt to better coordinate programs for their students, using Figure 9 as a guide.

If the departing data are further broken down into the counties of destination for those students leaving Arizona, it is possible to even more closely coordinate educational programs. As may be seen in Figure 10, there were 12 counties which received a significant number of students during the year. In fact, four counties (Merced and Santa Clara in California, Alamosa in Colorado, and Washington in Oregon) received 26% of all the migrant students departing from Arizona during the study year. Finally, a knowledge of the home base states of migrant students departing Arizona (in some sense, their ultimate destinations) will also serve to allow educational, health, and other social programs to be more closely coordinated for the

FIGURE 9

COUNTY OF ORIGIN, DESTINATION, AND GRADE LEVELS OF MIGRANT STUDENTS DEPARTING FROM ARIZONA SEPTEMBER 1977 - AUGUST 1978

SENDING COUNTY / RECEIVING STATE		ARKANSAS	CALIFORNIA	COLORADO	FLORIDA	KANSAS	IDAHO	MICHIGAN	MINNESOTA	MISSOURI	MONTANA	NEBRASKA	NEW JERSEY	NEW MEXICO	OHIO	OKLAHOMA	OREGON	SOUTH CAROLINA	TEXAS	UTAH	WASHINGTON	WYOMING	TOTAL
COCHISE	K-6			7															6				13
	7-12			—															—				—
	TOTAL			7															6				13
MARICOPA	K-6		10	15	1		16	2		5	6	6	3	2	2		21	1	32	3	16		141
	7-12		2	4	—		5	1		—	2	—	—	2	1		10	—	6	6	4		43
	TOTAL		12	19	1		21	3		5	8	6	3	4	3		31	1	38	9	20		184
PINAL	K-6	3	14	7			5		1								5		22	5	8		70
	7-12	1	11	—			3		—								2		4	—	—		21
	TOTAL	4	25	7			8		1								7		26	5	8		91
YUMA	K-6	13	220	30	5		8	2						2	2	1	20		4		9		316
	7-12	—	53	2	1		—	—						—	1	1	13		1		4		76
	TOTAL	13	273	32	6		8	2						2	3	2	33		5		13		392
COUNTY NOT REPORTED	K-6	1	45	9		1	6	1			3			1			5		1	4	1		78
	7-12	2	12	—		—	2	—			—			—			4		1	1	—	1	23
	TOTAL	3	57	9		1	8	1			3			1			9		2	5	1	1	101
TOTAL	K-6	17	289	68	6	1	35	5	1	5	9	6	3	5	4	1	51	1	65	12	34		618
	7-12	3	78	6	1	—	10	1	—	—	2	—	—	2	2	1	29	—	12	7	8	1	163
	TOTAL	20	367	74	7	1	45	6	1	5	11	6	3	7	6	2	80	1	77	19	42	1	781

FIGURE 10

MAJOR RECEIVING COUNTIES FOR MIGRANT STUDENTS
DEPARTING FROM ARIZONA
SEPTEMBER 1977 - AUGUST 1978

CALIFORNIA	
FRESNO	25
MERCED	69
MONTEREY	36
RIVERSIDE	19
SAN JOAQUIN	32
SANTA CLARA	46
SANTA CRUZ	20
STANISLAUS	39
COLORADO	
ALAMOSA	46
IDAHO	
CANYON	16
OREGON	
MARION	15
WASHINGTON	42

student's ongoing benefit. As may be seen in Figure 11, approximately 60% of departing students were, in fact, home based within the State of Arizona. Departing migrant students were home based in significant numbers in only two other states, California and Texas.

Summary

The preceding section has documented the interstate mobility patterns of Arizona's migrant students. As will be seen in the next section, the 1,349 entering students and the 781 departing students are a small portion of the total migrant student population in Arizona. Knowledge of their monthly mobility patterns, however, is important if interstate cooperation and program coordination is to effectively occur. Figures 12 through 23 present graphically the monthly interstate flows of migrant students for the 1977-1978 academic year.

Intrastate Migration

Frequency of Movement

During the September 1977 to August 1978 academic year, there were over 10,000 Arizona migrant students identified and recorded in the MSRTS. The number of moves which these students made during the study year is shown in Figure 24. As may be seen, the average number of movements of Arizona's intrastate migrant students is low. Forty-four percent of the students moved only one time during the year and 31% of the students indicated no movements during the year. As was discussed previously, it is

FIGURE 11

HOME BASE STATES OF MIGRANT STUDENTS DEPARTING ARIZONA
SEPTEMBER 1977 - AUGUST 1978

HOME BASE STATE	GRADE LEVELS		
	K-6	7-12	TOTAL
ARIZONA	350	108	458
ARKANSAS	7	—	7
CALIFORNIA	85	15	100
COLORADO	7	2	9
FLORIDA	8	2	10
IDAHO	20	5	25
KANSAS	1	—	1
MISSOURI	5	—	5
NEW MEXICO	5	2	7
OKLAHOMA	7	1	8
OREGON	16	6	22
PENNSYLVANIA	—	1	1
TEXAS	63	12	75
UTAH	5	—	5
WASHINGTON	12	3	15
MEXICO	16	3	19
CANADA	6	1	7
NOT REPORTED	5	2	7
TOTAL	618	163	781

FIGURE 12

ARIZONA MIGRANT STUDENT MOVEMENT
SEPTEMBER, 1977

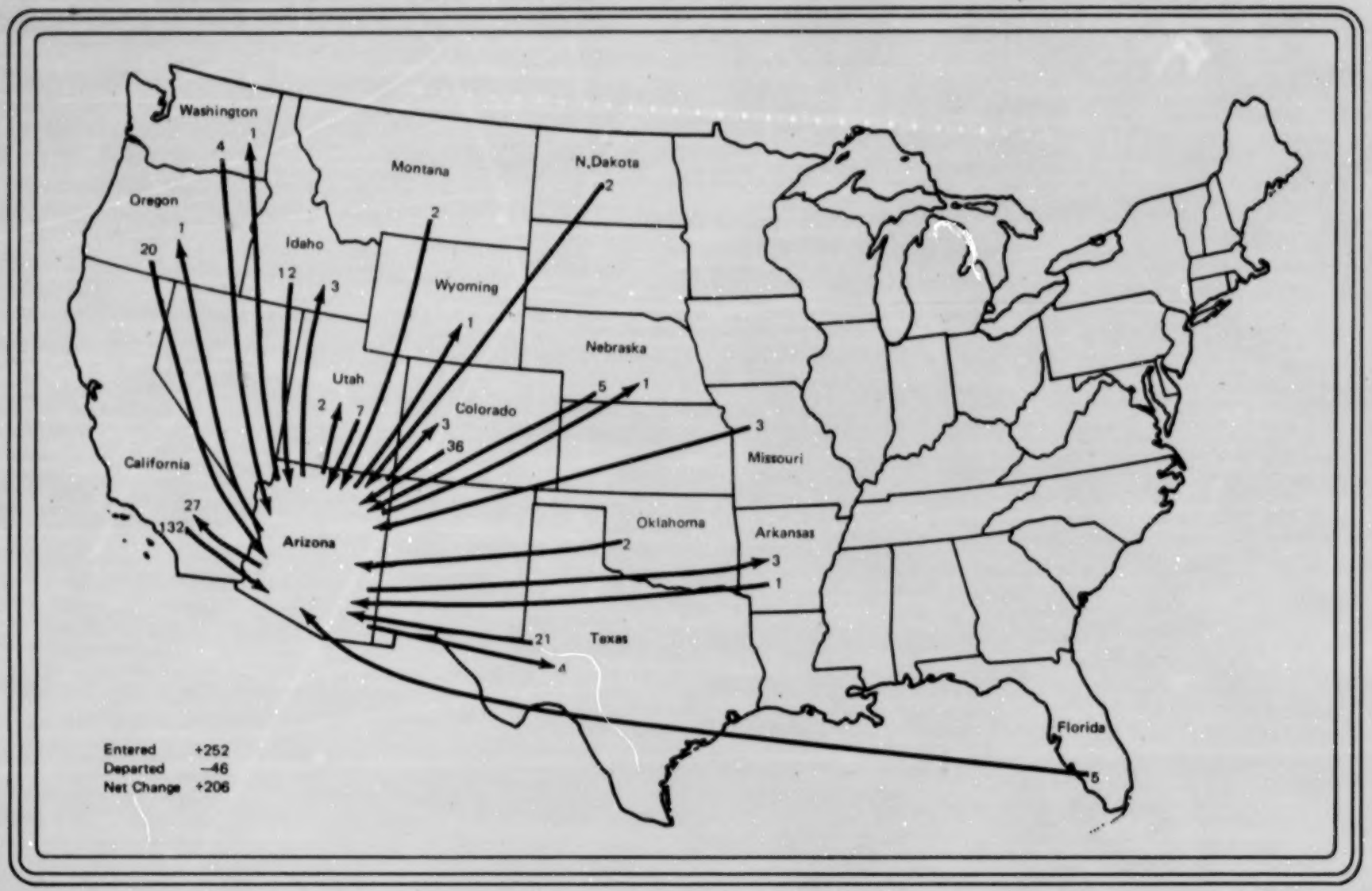


FIGURE 13

ARIZONA MIGRANT STUDENT MOVEMENT
OCTOBER, 1977

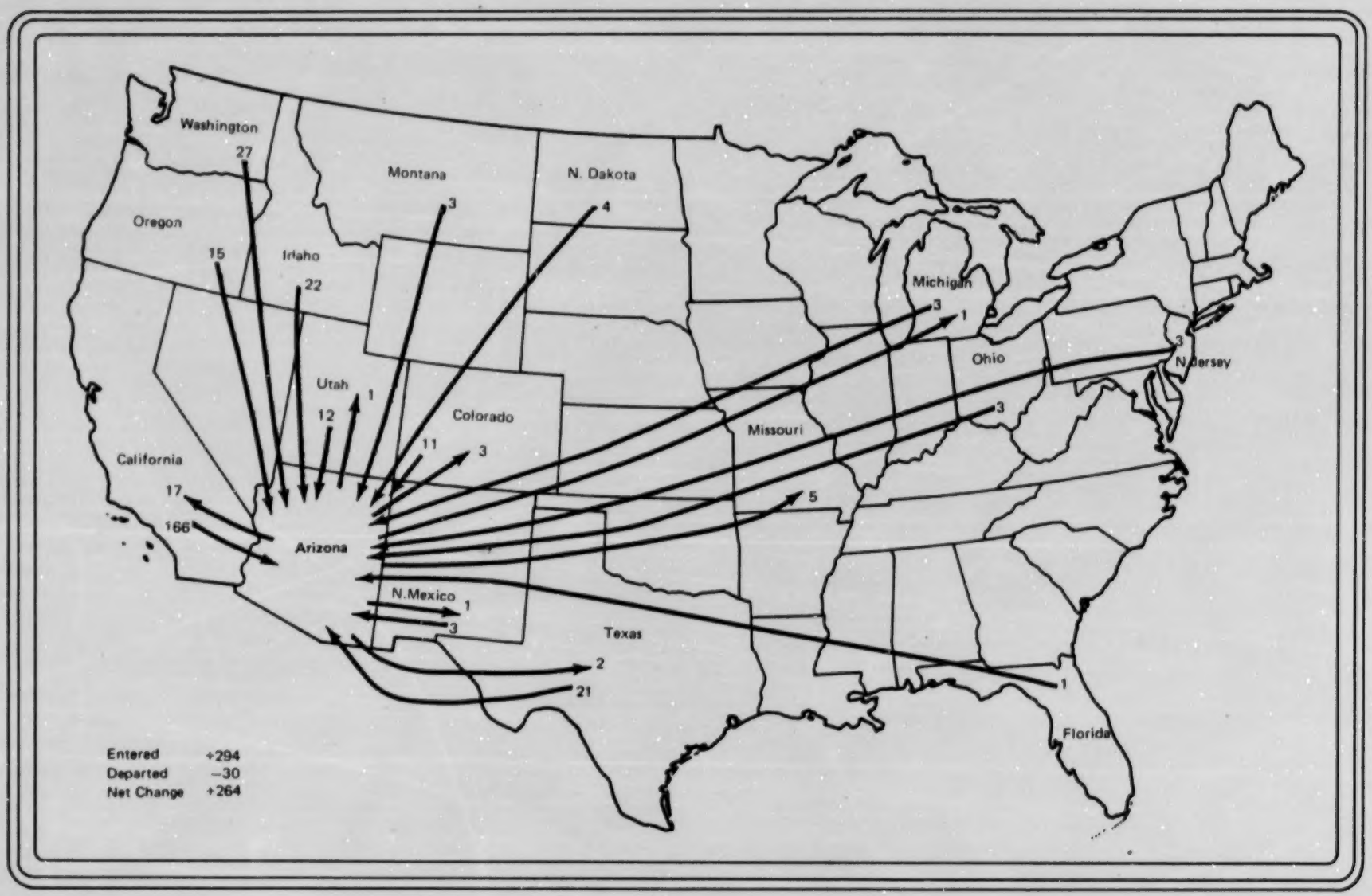


FIGURE 14

ARIZONA MIGRANT STUDENT MOVEMENT
NOVEMBER, 1977

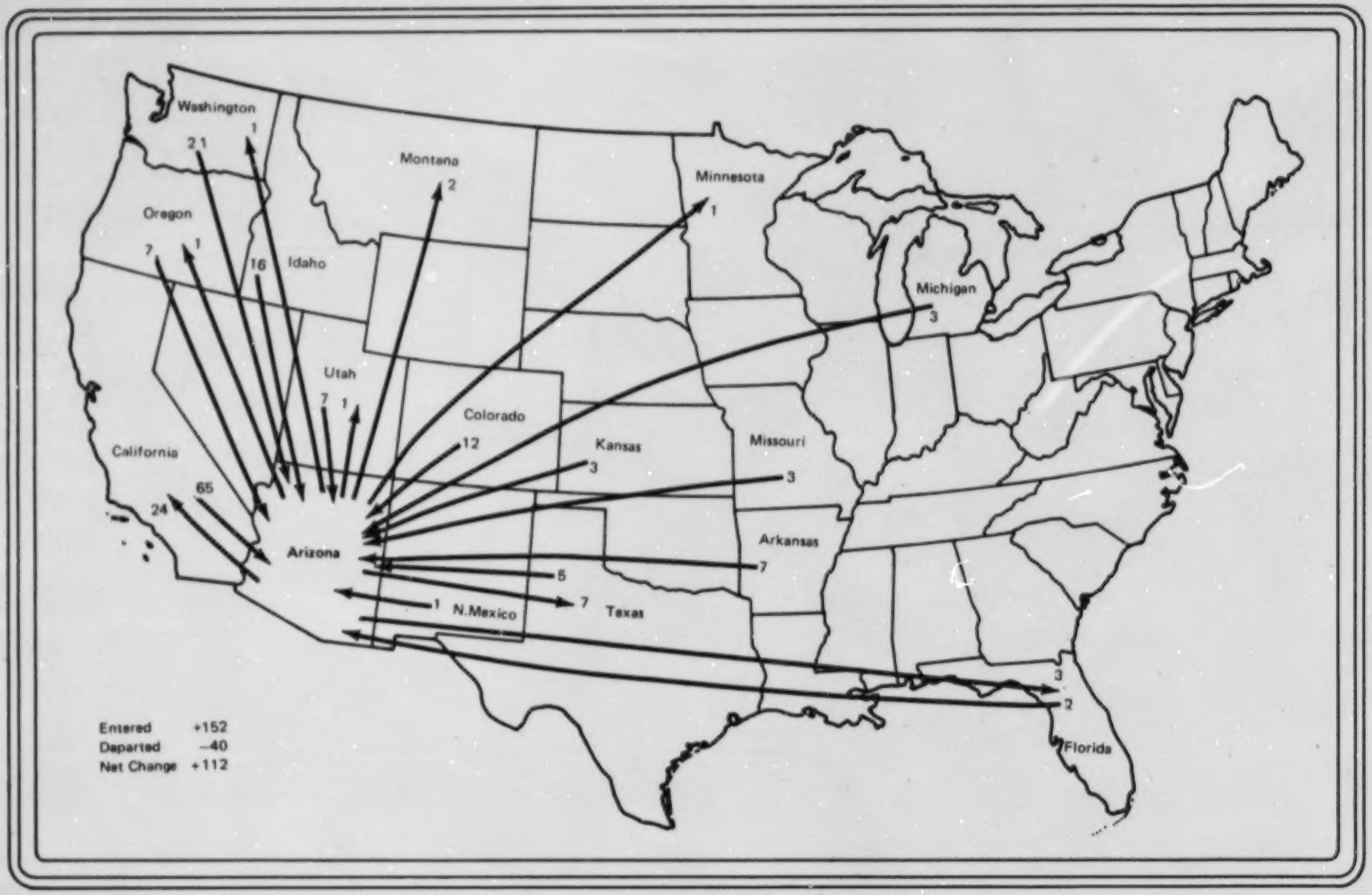


FIGURE 15

ARIZONA MIGRANT STUDENT MOVEMENT
DECEMBER, 1977

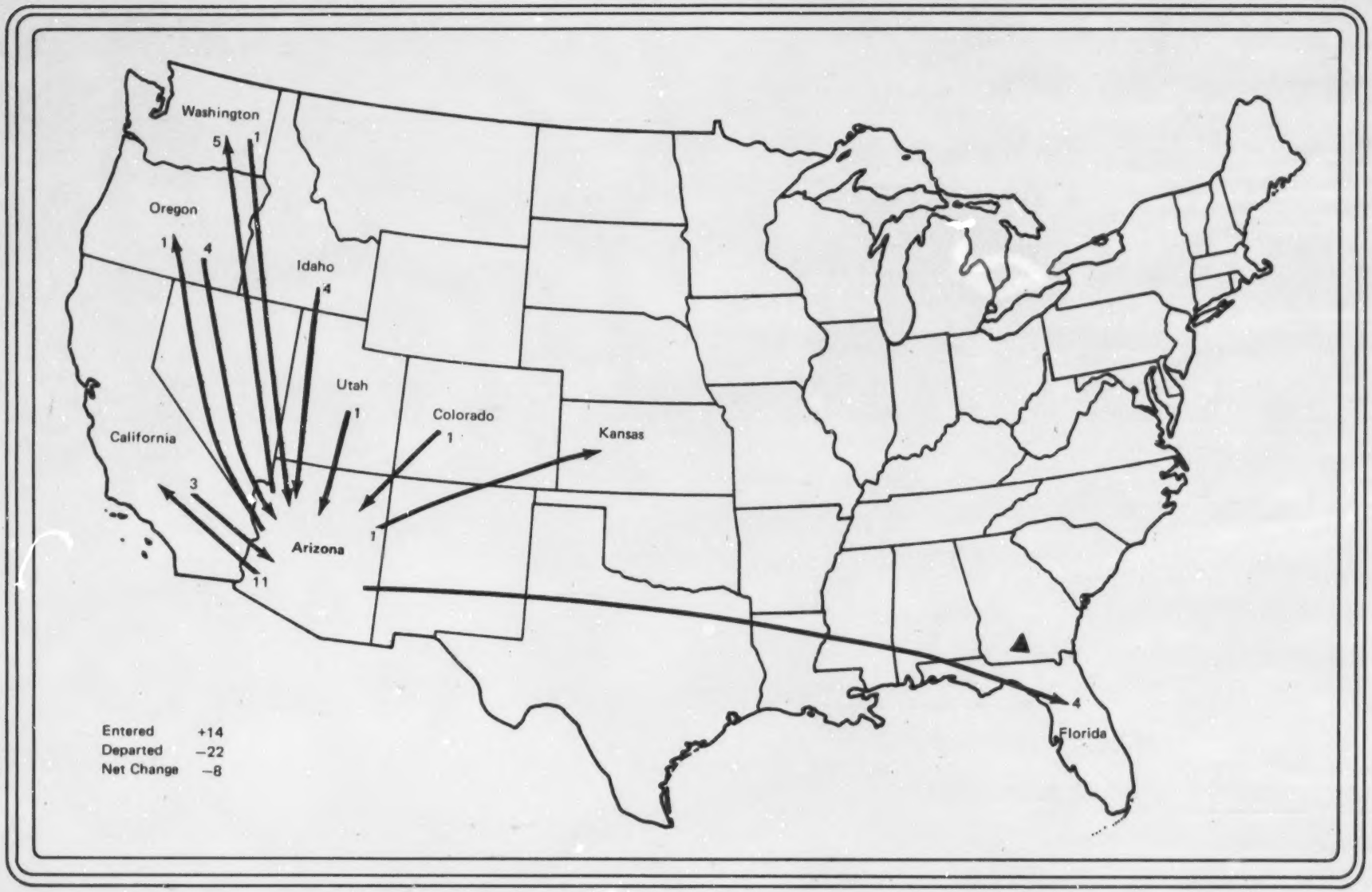


FIGURE 16

ARIZONA MIGRANT STUDENT MOVEMENT
JANUARY, 1978

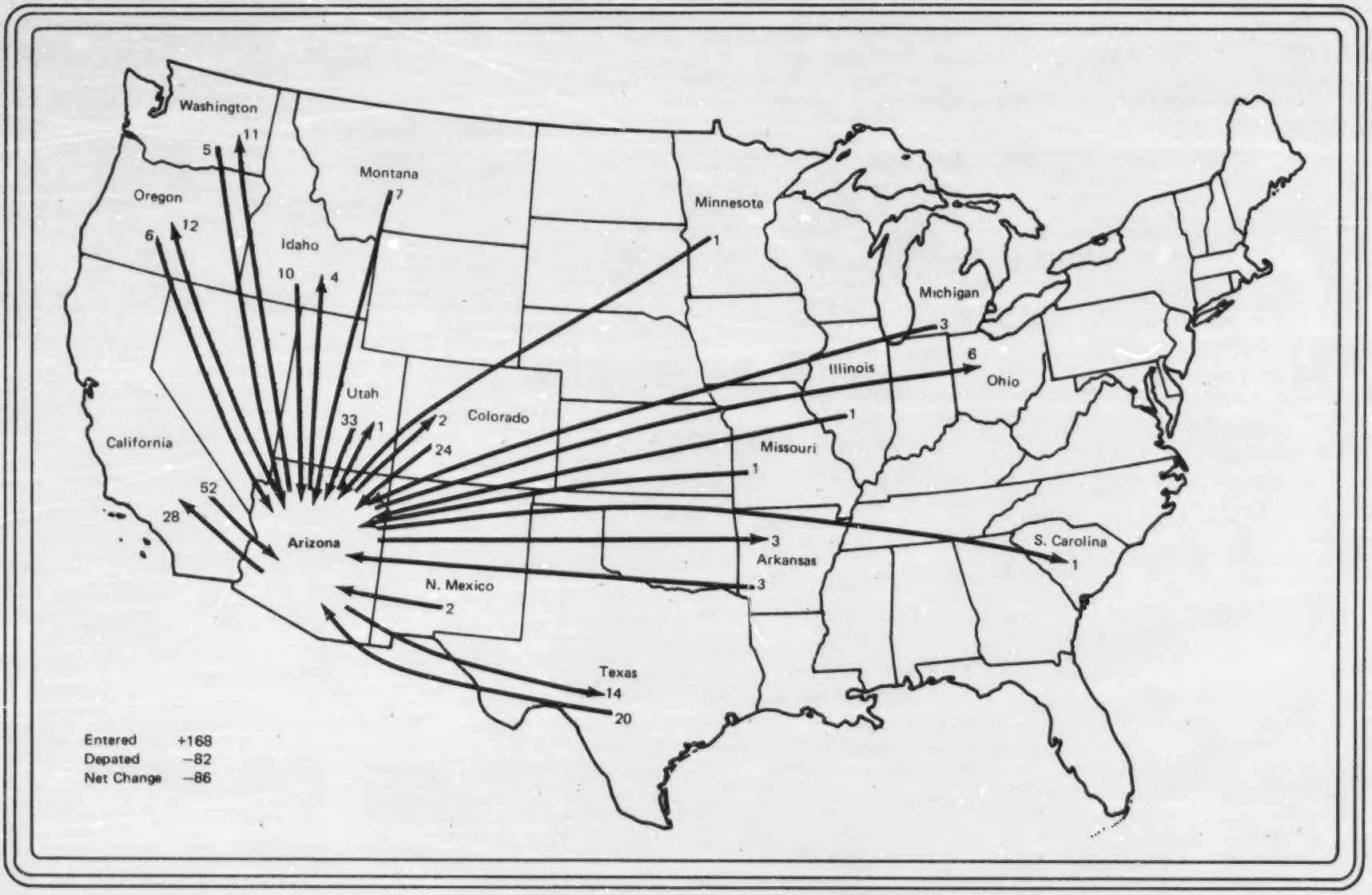


FIGURE 17

ARIZONA MIGRANT STUDENT MOVEMENT
FEBRUARY, 1978

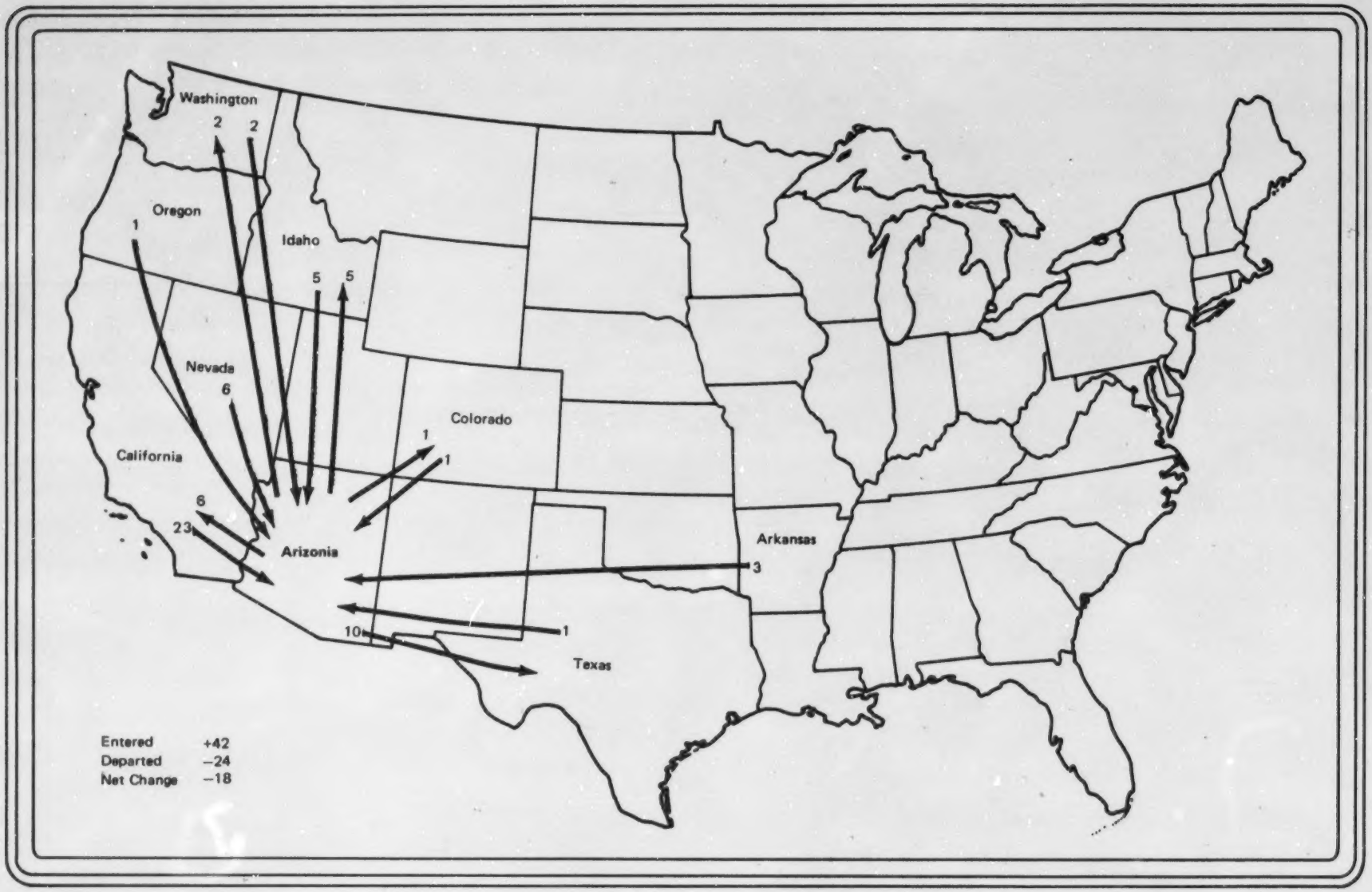


FIGURE 18

ARIZONA MIGRANT STUDENT MOVEMENT
MARCH, 1978

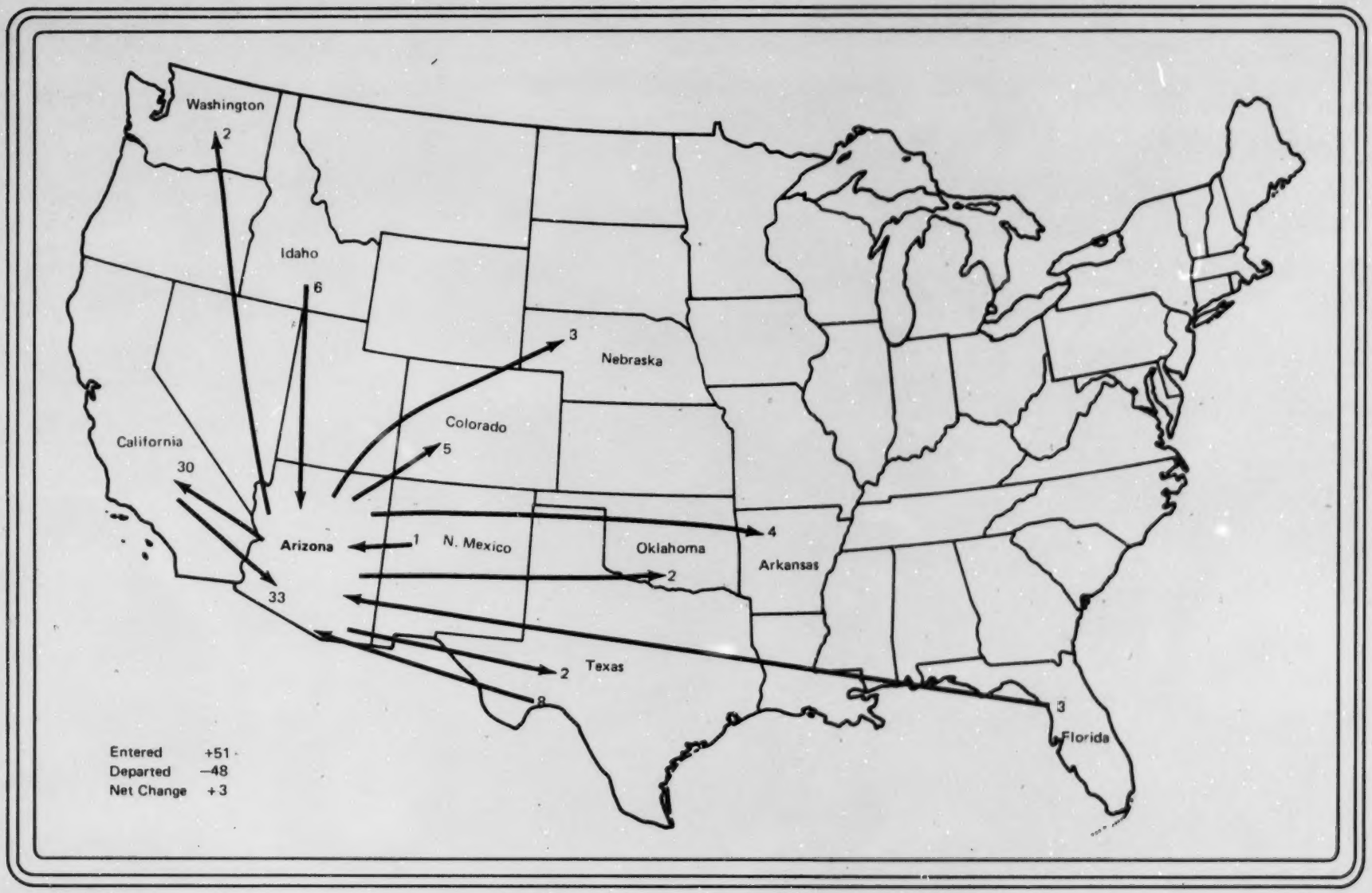


FIGURE 19

ARIZONA MIGRANT STUDENT MOVEMENT
APRIL, 1978

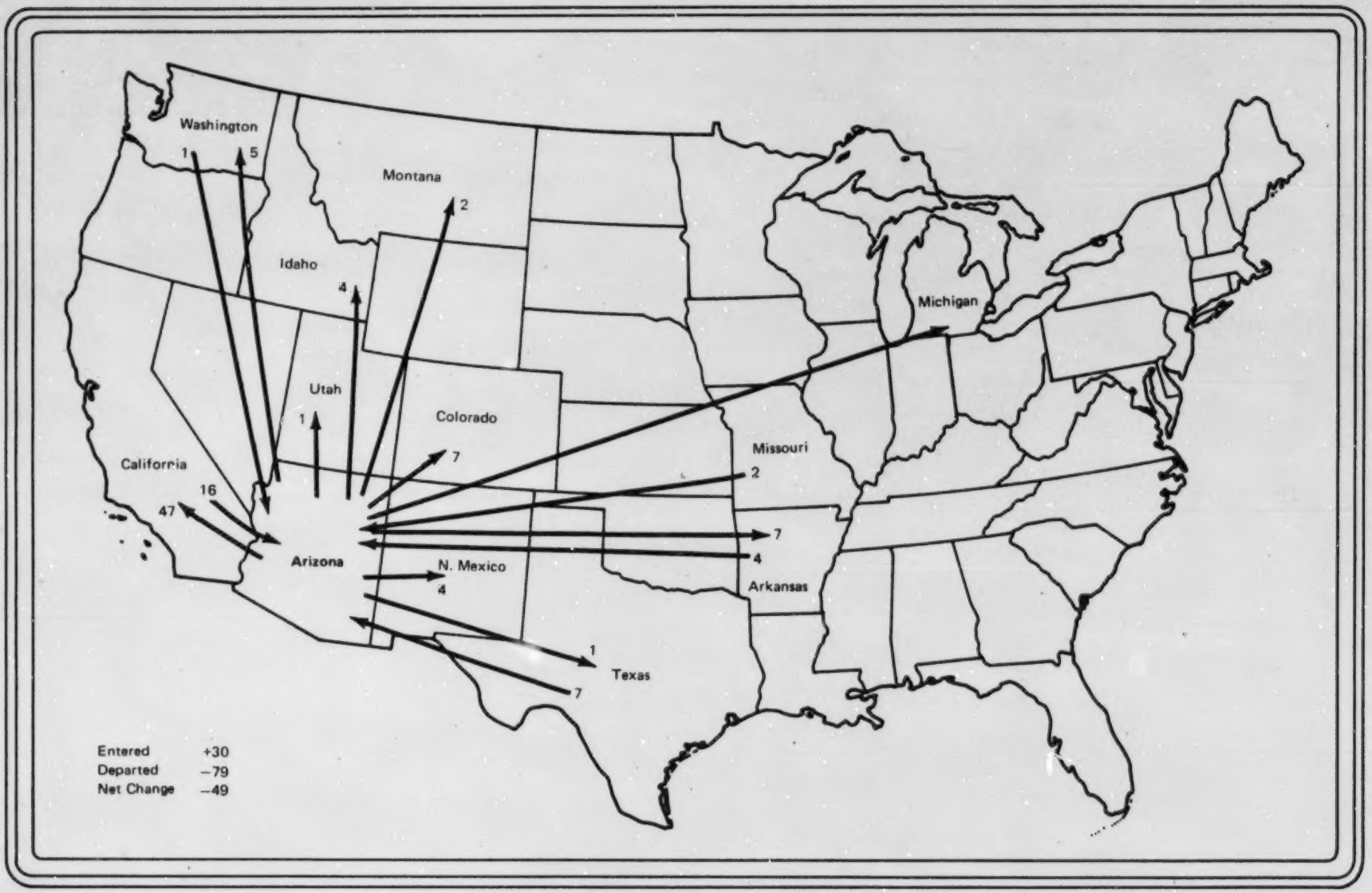


FIGURE 20

ARIZONA MIGRANT STUDENT MOVEMENT
MAY, 1978

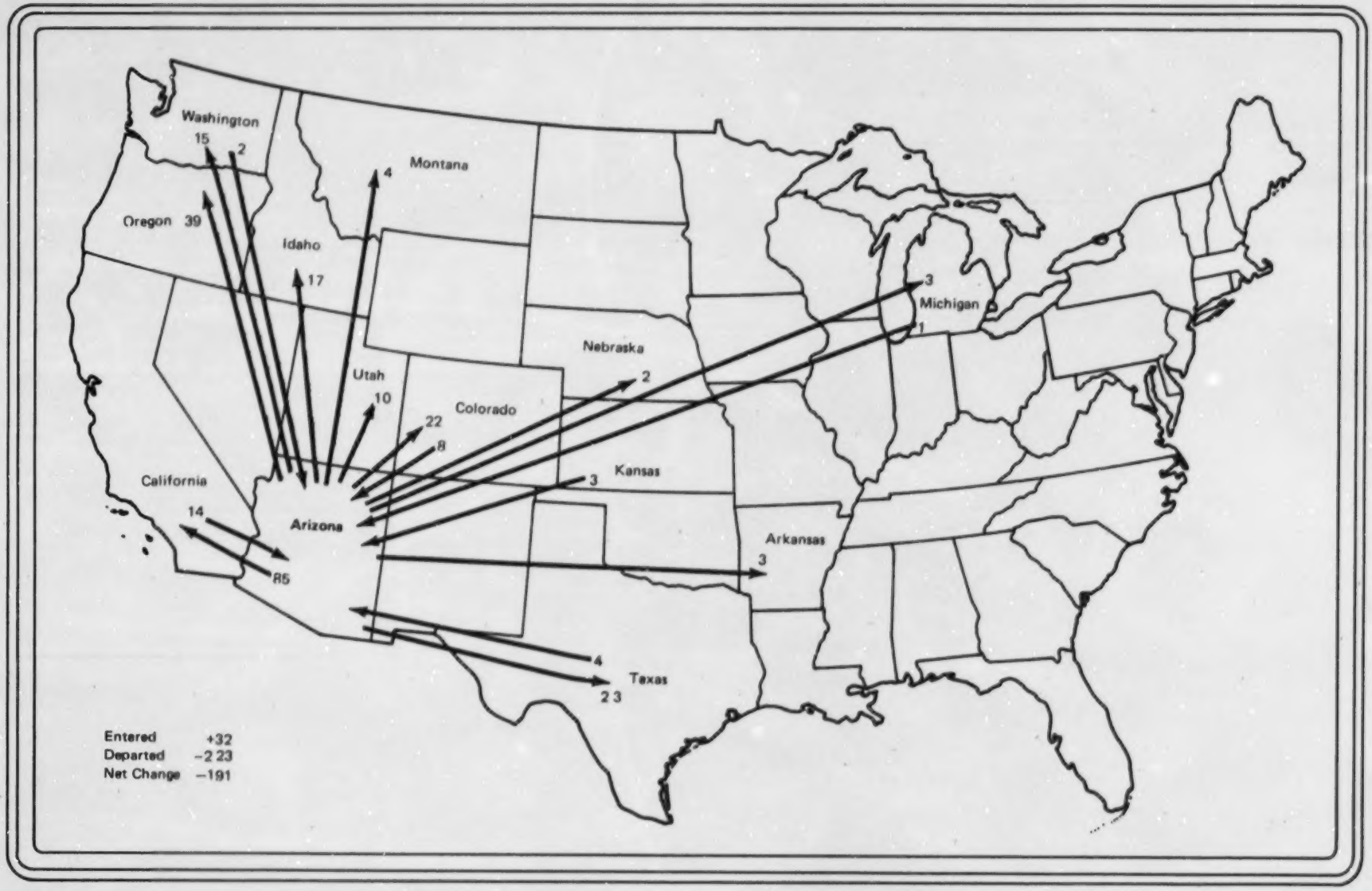


FIGURE 21

ARIZONA MIGRANT STUDENT MOVEMENT
JUNE, 1978

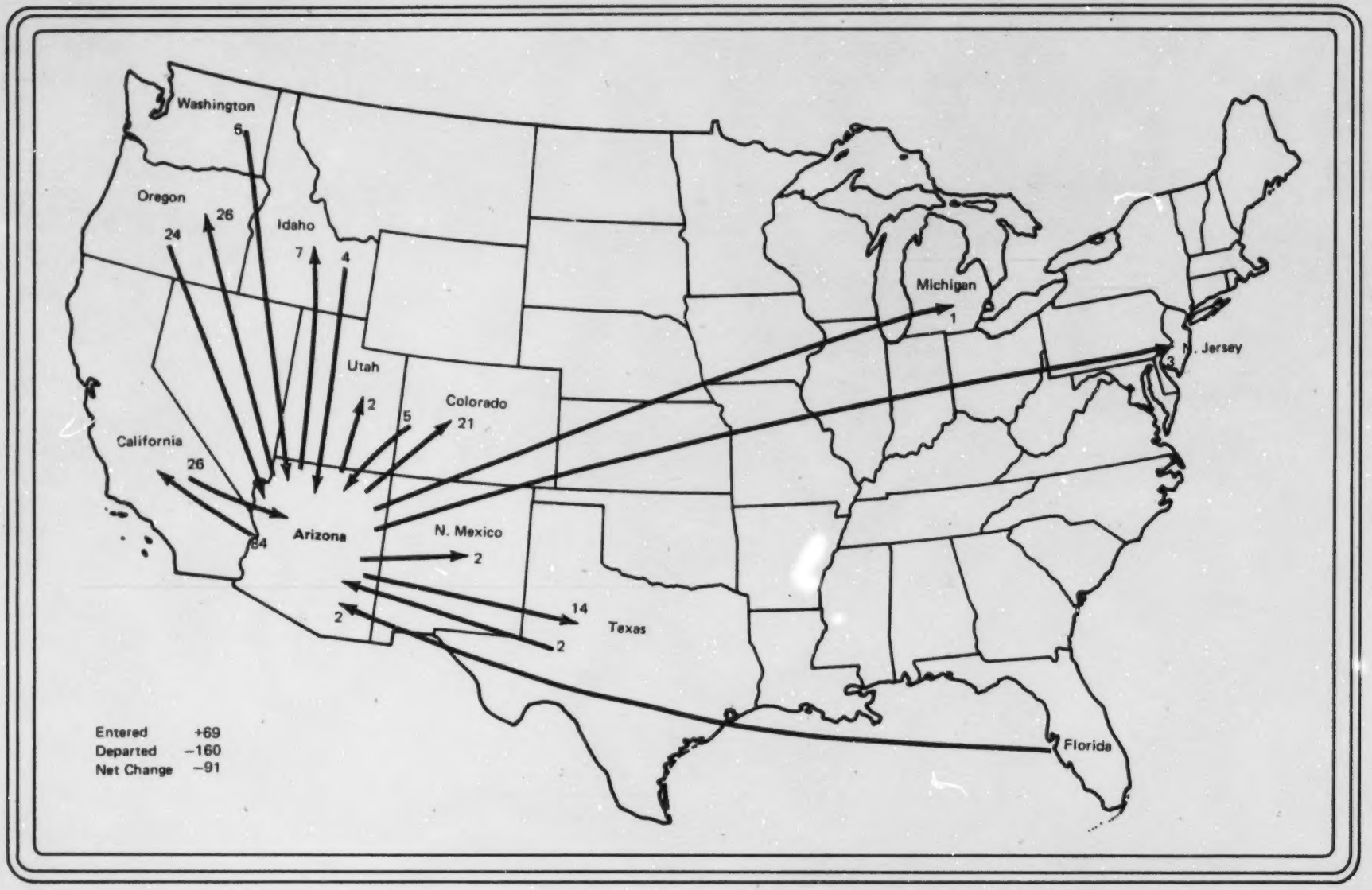


FIGURE 22

ARIZONA MIGRANT STUDENT MOVEMENT
JULY, 1978

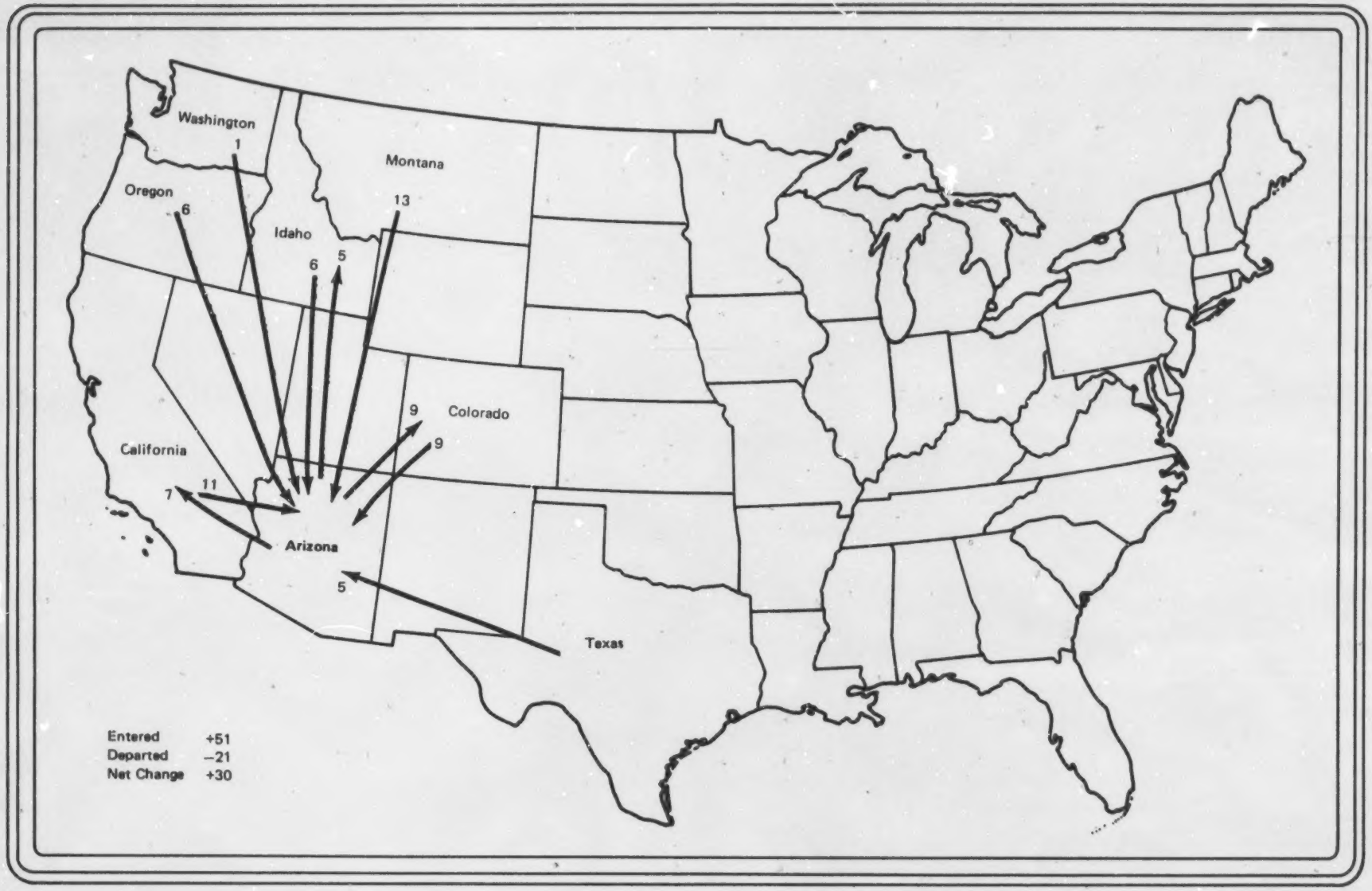


FIGURE 23

ARIZONA MIGRANT STUDENT MOVEMENT
AUGUST, 1978

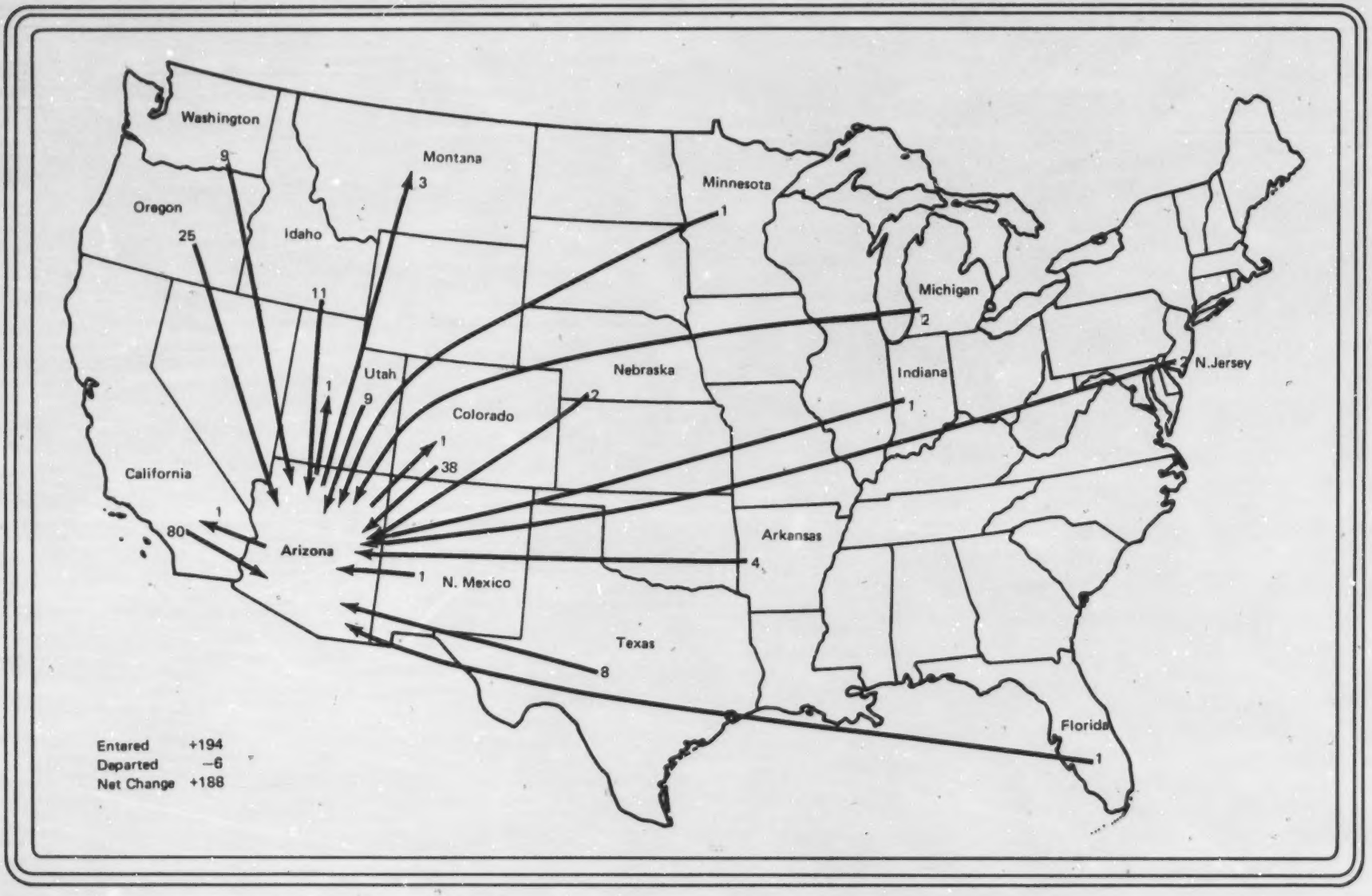


FIGURE 24

NUMBER OF MIGRANT STUDENTS MOVING INDICATED NUMBER OF TIMES WITHIN THE STATE OF ARIZONA SEPTEMBER 1977 - AUGUST 1978

NUMBER OF MOVES	NUMBER (PERCENT OF STUDENTS)
0	3078 (31.0%)
1	4380 (44.1%)
2	2091 (21.1%)
3	348 (3.5%)
4	22 (0.2%)
5	3 (-)
TOTAL	9922

important to remember that, unless a student moves from one project school to another project school, no movement is recorded. It is possible, therefore, that for a number of the students identified as not moving during the year, movement did occur either within the state or to another state, but that the students involved did not enroll in a school with a migrant project.

A further analysis of the migrant students indicating no movement during the study year is reported in Figure 25. Figure 25 indicates that there are some significant differences in the county of school registration for students who do not indicate a move and for those who do. Whereas Yuma County has a greater number of reported inter- and intrastate students,

FIGURE 25

COUNTY OF SCHOOL REGISTRATION FOR MIGRANT STUDENTS
INDICATING NO MOVEMENT BETWEEN SEPTEMBER 1977 AND AUGUST 1978

COUNTY	NUMBER OF STUDENTS
COCHISE	151
MARICOPA	1436
PINAL	649
YUMA	837
NOT REPORTED	5
TOTAL	3078

the largest number of students indicating no movement may be found in Maricopa County. Again, in interpreting this data, great care must be given to be certain that one distinguishes between a student who does not move (settled-out migrant) and one who moves to nonproject schools.

Movement Patterns

The patterns of reported student movement within the State of Arizona are consistent with those found for other States. As may be seen in Figure 26, the greatest proportion of all intrastate movements occur within the county itself. Again, the data reported are for movements between project schools and some student movements may be missed. It is important, however, to note that there is a high level of movement within the counties, allowing

the State of Arizona to more directly provide for the necessary continuity of services which is so essential if migrant students are to be provided with choices, not circumstances.

FIGURE 26

INTRASTATE MOVEMENT OF MIGRANT STUDENTS IN ARIZONA
SEPTEMBER 1977 - AUGUST 1978

RECEIVING COUNTIES / SENDING COUNTIES	COCHISE	MARICOPA	PINAL	YUMA	TOTAL
COCHISE	47	—	—	1	48
MARICOPA	—	3224	13	15	3252
PINAL	—	13	1917	3	1933
YUMA	8	38	13	3725	3784
TOTAL	55	3275	1943	3744	9017

NOTE: ONLY THOSE STUDENTS WHO ACTUALLY MOVED DURING THE YEAR ARE REPORTED IN THIS FIGURE.

CHAPTER 3

COMPARATIVE ANALYSES

Introduction

In this chapter, a comparative analysis of the migrant student movement data is presented. A parallel review of the two years will provide Arizona Migrant Child Education Program staff persons with increased insights into the trends and changes that are occurring within the program. In making the comparisons, it is essential to be aware that the studies are not totally identical. The basic differences between the two studies are:

- The 1973 study covered the calendar year, whereas the current study covers the 1977-1978 academic year.
- The 1973 study analyzed interstate movements only, whereas the 1978 study documents both inter- and intrastate student movements.
- The 1973 study was significantly less detailed than the 1978 study.
- The 1973 study contained an analysis of the Migrant Student Record Transfer System effectiveness.

Migrant Students Entering Arizona

The most obvious difference between the two studies is in the number of students identified as entering Arizona in the two years. During 1973, 275 students were identified as entering the state, whereas in the 1978 study, 1,349 students entered

Arizona. This five-fold increase in the number of students entering Arizona is documented in Figure 27. As may be seen, in both years California was the major external supplier of migrant students to the Arizona program, with Idaho second in 1973 and Colorado second in 1978. Figure 27 also shows that students are being drawn from a more diverse group of states in 1978. Whereas in 1973 the top three states provided over 77% of all entering students, in 1978 the top three states provided less than 65%. This reduction in concentration was accompanied by an increase in the number of states supplying students, with this number increasing from 14 in 1973 to 23 in 1978.

Figures 28 and 29 present summary data for the two study years concerning monthly entering patterns. Two factors of significance may be observed from a review of these two tables. First, the pattern of entry into the state is less concentrated in 1978 than it was in 1973. In the present year, less than 55% of the students arrived during the three principal months, whereas over 69% of the students arrived during the three principal months previously. Secondly, migrant students are arriving in Arizona slightly earlier, with the three peak months presently being August through October as opposed to September through November previously.

Migrant Students Departing from Arizona

The same type of changes that were observed to be true for students entering the state are also true for students departing from Arizona. As is shown in Figure 30, there was a significant

FIGURE 27

MAJOR SENDING STATES FOR MIGRANT STUDENTS ENTERING ARIZONA DURING CALENDAR YEAR 1973 AND ACADEMIC YEAR 1977-1978

ACADEMIC YEAR 1977-1978		CALENDAR YEAR 1973	
SENDING STATE	NUMBER	SENDING STATE	NUMBER
CALIFORNIA	621	CALIFORNIA	155
COLORADO	145	IDAHO	37
OREGON	108	WASHINGTON	20
TEXAS	102	TEXAS	17
IDAHO	96	OREGON	15
ALL OTHERS	277	ALL OTHERS	31
TOTAL	1349	TOTAL	275

FIGURE 28

MIGRANT STUDENTS ENTERING ARIZONA BY MONTH AND SENDING STATE DURING ACADEMIC YEAR 1977-1978

SENDING STATE \ MONTH	SEPTEMBER 1977	OCTOBER 1977	NOVEMBER 1977	DECEMBER 1977	JANUARY 1978	FEBRUARY 1978	MARCH 1978	APRIL 1978	MAY 1978	JUNE 1978	JULY 1978	AUGUST 1978	TOTAL
ARKANSAS	1		7		3	3		4				4	22
CALIFORNIA	132	166	65	3	52	23	33	16	14	26	11	80	621
COLORADO	36	11	12	1	24	1			8	5	9	38	145
FLORIDA	5	1	2				3			2		1	14
IDAHO	12	22	16	4	10	5	6			4	6	11	96
ILLINOIS					1								1
INDIANA												1	1
KANSAS			3						3				6
MICHIGAN		3	3		3				1			2	12
MINNESOTA					1							1	2
MISSOURI	3		3		1			2					9
MONTANA	2	3			7						13		25
NEBRASKA	5											2	7
NEVADA						6							6
NEW JERSEY		3										2	5
NEW MEXICO		3	1		2		1					1	8
NORTH DAKOTA	2	4											6
OHIO		3											3
OKLAHOMA	2												2
OREGON	20	15	7	4	6	1				24	6	25	108
TEXAS	21	21	5		20	1	8	7	4	2	5	8	102
UTAH	7	12	7	1	33							9	69
WASHINGTON	4	27	21	1	5	2		1	2	6	1	9	79
TOTAL	252	294	152	14	168	42	51	30	32	69	51	194	1349

FIGURE 29

MIGRANT STUDENTS ENTERING ARIZONA BY MONTH AND SENDING STATE DURING CALENDAR YEAR 1973

SENDING STATE \ MONTH	JANUARY 1973	FEBRUARY 1973	MARCH 1973	APRIL 1973	MAY 1973	JUNE 1973	JULY 1973	AUGUST 1973	SEPTEMBER 1973	OCTOBER 1973	NOVEMBER 1973	DECEMBER 1973	TOTAL
ARKANSAS			2										2
CALIFORNIA	5	4	9	14		1		2	71	36	11	2	155
COLORADO								1	1	1	2	1	6
IDAHO				3			4	4	5	11	6	4	37
MISSISSIPPI		1						1				1	3
MISSOURI												1	1
NEVADA								2					2
NEW MEXICO						1			1		1		3
NEW YORK						1			5				6
OREGON		1					2		3	8	1		15
SOUTH CAROLINA												1	1
TEXAS	2	3	2	2				1	2	2	3		17
UTAH									3		4		7
WASHINGTON		2							1	9	4	4	20
TOTAL	7	11	13	19		3	6	11	92	67	32	14	275

FIGURE 30

MAJOR RECEIVING STATES FOR MIGRANT STUDENTS DEPARTING FROM ARIZONA DURING CALENDAR YEAR 1973 AND ACADEMIC YEAR 1977-1978

ACADEMIC YEAR 1977-1978		CALENDAR YEAR 1973	
RECEIVING STATE	NUMBER	RECEIVING STATE	NUMBER
CALIFORNIA	367	CALIFORNIA	172
OREGON	80	IDAHO	28
TEXAS	77	TEXAS	27
COLORADO	74	OREGON	22
IDAHO	45	WASHINGTON	22
ALL OTHERS	138	ALL OTHERS	27
TOTAL	781	TOTAL	298

increase in the number of students departing. During 1973, 298 students departed from Arizona for destinations in 17 states, whereas in 1978, 781 students left Arizona for project schools in 21 other states. Again, California was the major receiving state in both studies, with Idaho second in 1973 and Oregon second in 1978. It is interesting that, as was true for students entering Arizona, Colorado has become a state of significantly increased importance in terms of the number of migrant students which travel to and from the state. Finally, as was also true for students entering the state, there is a decrease in the percentage of students departing for the top three states in the present year. In 1973, 76% of Arizona's migrant students departed for either California, Idaho, or Texas, whereas in 1978, only 67% of Arizona's departing students left for California, Oregon, or Texas.

Comparative monthly departing data for Arizona's migrant students may be seen in Figures 31 and 32. While the decrease in the concentration of students departing in the two prime months is not as dramatic as was true for entering students, it exists nonetheless. In 1973, almost 54% of Arizona's migrant students left the state in either April or May, whereas in 1978, only 49% of the students left in May or June. As these figures reveal, there is also a shift in the time during which the students leave, with students presently departing approximately one month later than they were five years ago. This later departure combined with the earlier arrival of migrant students means that an increasing percentage of the migrant student's education will

FIGURE 31

MIGRANT STUDENTS DEPARTING FROM ARIZONA BY MONTH AND RECEIVING STATE DURING ACADEMIC YEAR 1977-1978

RECEIVING STATE \ MONTH	SEPTEMBER 1977	OCTOBER 1977	NOVEMBER 1977	DECEMBER 1977	JANUARY 1978	FEBRUARY 1978	MARCH 1978	APRIL 1978	MAY 1978	JUNE 1978	JULY 1978	AUGUST 1978	TOTAL
ARKANSAS	3				3		4	7	3				20
CALIFORNIA	27	17	24	11	28	6	30	47	85	84	7	1	367
COLORADO	3	3			2	1	5	7	22	21	9	1	74
FLORIDA			3	4									7
IDAHO	3				4	5		4	17	7	5		45
KANSAS				1									1
MICHIGAN		1						1	3	1			6
MINNESOTA			1										1
MISSOURI		5											5
MONTANA			2					2	4			3	11
NEBRASKA	1						3		2				6
NEW JERSEY										3			3
NEW MEXICO		1						4		2			7
OHIO					6								6
OKLAHOMA							2						2
OREGON	1		1	1	12				39	26			80
SOUTH CAROLINA					1								1
TEXAS	4	2	7		14	10	2	1	23	14			77
UTAH	2	1	1		1			1	10	2		1	19
WASHINGTON	1		1	5	11	2	2	5	15				42
WYOMING	1												1
TOTAL	46	30	40	22	82	24	48	79	223	160	21	6	781

FIGURE 32

MIGRANT STUDENTS DEPARTING FROM ARIZONA BY MONTH AND RECEIVING STATE DURING CALENDAR YEAR 1973

RECEIVING STATE \ MONTH	JANUARY 1973	FEBRUARY 1973	MARCH 1973	APRIL 1973	MAY 1973	JUNE 1973	JULY 1973	AUGUST 1973	SEPTEMBER 1973	OCTOBER 1973	NOVEMBER 1973	DECEMBER 1973	TOTAL
ARKANSAS			4										4
CALIFORNIA	14	10	13	31	66	8	9		4	6	5	6	172
COLORADO					2	1							3
FLORIDA											2		2
IDAHO	1		3	9	11	4							28
MINNESOTA						1							1
MISSOURI	1												1
MONTANA				1									1
NEVADA					2								2
NEW MEXICO	1	3											4
NEW YORK									1				1
NORTH DAKOTA				1									1
OKLAHOMA												1	1
OREGON	5		3	4	8				2				22
TEXAS	5	1	2	10	2	2	1				4		27
UTAH				1	4	1							6
WASHINGTON	2	1	5	6	2			1	2	1	2		22
TOTAL	29	15	30	63	97	17	10	1	9	7	13	7	298

be accomplished within the State of Arizona, thus providing students with a greater opportunity for educational achievement due to the reduced disruption caused by mobility.

CHAPTER 4

SUMMARY AND RECOMMENDATIONS

Summary

The major findings of the Arizona Migrant Student Movement Study are:

- The majority of Arizona's mobile migrant students are intrastate students. During the 1977-1978 academic year, 1,349 students entered Arizona and 781 students left the state. This is in sharp contrast to the over 9,000 intrastate migrant students identified.
- The major states which are involved with Arizona in terms of student movements are California, Colorado, Oregon, Texas, and Idaho. At present, Colorado is increasing in relative importance to the Arizona program and Idaho is decreasing in relative importance.
- There are four individual counties that are identifiable as having a strong interstate relationship with Arizona. These counties are Merced and Monterey in California, Alamosa in Colorado, and Washington in Oregon. Over 20% of students entering or departing Arizona do so to or from these four counties.
- Migrant students are spending an increasing length of time in Arizona. Students are arriving earlier and departing later. This increasing amount of time provides the Arizona Migrant Child Education Program with both an increased burden and an increased opportunity.

- A significant number of students who are mobile appear to be travelling to nonproject schools during the summer. This conclusion is reached because of the number of students which are known to have moved during the year but for whom no move is recorded on their MSRTS record.
- The major portion of Arizona's intrastate migrant student movement occurs within the individual counties during the school year. Migrant students and their families frequently travel to distant parts of their home counties in order to work with the crops which are ready at the time.

Recommendations

Based on the data presented in the preceding sections of this study, the following recommendations are made:

- A concentrated identification and recruitment program for secondary migrant students should be developed and implemented. Given the relatively small number of secondary migrant students identified in the study, much greater emphasis should be placed on making those students active participants in operating projects.
- A student information exchange program should be developed with those counties to or from which Arizona's migrant students travel. As was shown, over 20% of all of Arizona's migrant students travel to or from four counties in other states. By establishing an ongoing information exchange program, staff persons in other

states could be better equipped to meet the needs of Arizona's students when they leave the State of Arizona, and Arizona staff persons could be better equipped to serve the students on their arrival.

- A study similar to the present study should be repeated every three to five years to identify new mobility patterns. As was shown, there have been some significant changes in the numbers and patterns of migrant student movements in the past five years. A follow-up study should be conducted to determine whether these changes are continuing and the impact this has on the program.
- State personnel should act to encourage the entry of county codes on all MSRTS records. It was found that a significant number of county codes were missing, making it more difficult to pinpoint the precise location of a student within the state.
- A followup should be conducted with students who have no moves identified in the past year. As was shown, a number of students have moved during this period but have done so to nonproject schools. To the extent that these moves occur within the State of Arizona, these mobile students should be identified and recruited into ongoing projects, and new projects should be established as needed to be certain that the full range of options is available to every migrant student.

This report was prepared for the Arizona Migrant Education Program by D. A. LEWIS ASSOCIATES, INC., a Washington, D. C.-based research, consulting, and publishing company. The firm has performed client assignments for federal agencies, over twenty states, and private organizations, including such research as comprehensive needs assessments for migrant education in three states, analysis of the movements of migrant pupils for nine states, evaluation of the educational and economic impact of preschool day care centers, two separate benefits analyses of the Migrant Student Record Transfer System, and assessment of the functioning of migrant health programs. In addition to its research activities, the firm has developed manuals and other publications, including The Migrant Educator, the national news publication for educators of migrant children.

The principal author of this report is BENJAMIN G. DAVIS, Director of Evaluation and Economic Studies for D. A. Lewis Associates, Inc. Mr. Davis has an extensive background in economic analysis and social program evaluation. His professional specialty is in the economics of human resources with experience in the areas of educational program evaluation, manpower projections and analyses, cost-effectiveness analysis, and survey design and validation. In addition to the present volume, Mr. Davis has authored publications for the United Nations; the National Center for Educational Statistics, USOE; and the Federal Technical Assistance Team.